

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings of claims in the application:

Claim 1 (Currently Amended): A process for the preparation of polyisobutene comprising at least 75 mol% of terminal vinylidene groups, wherein isobutene or an isobutene-containing hydrocarbon mixture is polymerized in a liquid phase in the presence of a boron trifluoride complex catalyst having a composition

$$a(\text{BF}_3) : b(\text{Co1}) : c(\text{Co2})$$

wherein

Co1 is at least one tertiary alcohol,

Co2 is at least one compound selected from the group consisting of water, primary alcohols, secondary alcohols, ~~dialkyl ethers~~, alkanecarboxylic acids and phenols,

the ratio c:b is from 0.9 to 1.8 and

the ratio (b+c):a is from 0.9 to 3.0.

Claim 2 (Previously Presented): A process as claimed in claim 1, wherein said Co1 is tert-butanol.

Claim 3 (Previously Presented): A process as claimed in claim 1, wherein said Co2 is methanol, ethanol, 2-propanol or 2-butanol.

Claim 4 (Previously Presented): A process as claimed in claim 1, wherein said polyisobutene has a number average molecular weight M_n of from 500 to 50 000 Dalton.

Claim 5 (Previously Presented): A process as claimed in claim 1, wherein said Co1 is 1,1-dimethyl-1-propanol.

Claim 6 (Previously Presented): A process as claimed in claim 1, wherein 0.5 to 10 mmol of said catalyst, calculated as boron trifluoride, are used per mol of olefin monomers.

Claim 7 (Previously Presented): A process as claimed in claim 1, wherein polymerization of the isobutene is carried out by a continuous process.

Claim 8 (Previously Presented): A process as claimed in claim 1, wherein a reactor is used which is selected from the group consisting of a tubular reactor, a tube-bundle reactor and a stirred kettle.

Claim 9 (Previously Presented): A process as claimed in claim 1, wherein the polymerization is effected in a loop reactor,

wherein said loop reactor is a tubular or tube-bundle reactor with continuous circulation of the reaction medium, wherein a ratio of feed to circulation F/C is in the range of from 1:5 to 1:500 v/v.

Claim 10 (Previously Presented): A process as claimed in claim 1, wherein the polymerization is carried out at below 0°C.

Claim 11 (Previously Presented): A process as claimed in claim 1, wherein the polymerization is carried out at from 0.5 to 20 bar (absolute).

Claim 12 (Previously Presented): A process as claimed in claim 1, wherein the polymerization is carried out under isothermal conditions.

Claim 13 (Previously Presented): A process as claimed in claim 1, wherein a residence time of the isobutene to be polymerized in the reactor is from 1 to 120 minutes.

Claim 14 (Previously Presented): A process as claimed in claim 1, wherein the polyisobutenes obtained have a dispersity M_w/M_n of from 1.3 to 5.